1.6 Watershed Planning

1.6.1 Introduction

The goal of this program component is to improve and protect the quality of receiving waters in the six watersheds wholly or partially within the City of San Diego (San Dieguito River, Peñasquitos, Mission Bay, San Diego River, San Diego Bay, and Tijuana River watersheds) using a watershed planning approach. This will be achieved through the Storm Water Program's development and implementation of urban runoff management programs specific to each watershed in two major steps: first, collaborative development of Watershed Urban Runoff Management Programs; and second, implementing the Watershed Urban Runoff Management Programs, which will largely be facilitated through "Watershed Management Plans". The Storm Water Program will lead the development of the Watershed Urban Runoff Management Programs in the San Dieguito River, Peñasquitos, Mission Bay, and San Diego River watersheds, and participate in the development of the programs for the San Diego Bay, and Tijuana River watersheds. This program component is primarily applicable to the Storm Water Program, and secondarily, to the Planning Department, Water Department, and any other City departments that assist in the development and/or implementation of the City's watershed urban runoff management programs.

The City's program must meet the watershed planning requirements of the San Diego Municipal Storm Water Permit by January 31, 2003, as described in Table 1.6-1.

Table 1.6-1. January 31, 2003 Permit Requirements – Watershed Planning.

Section	***Requirement (Summary)***	***Permit Section***
1.6.3	Develop a budget for storm water expenditures for each fiscal year covered by the Municipal Permit	F.8
1.6.2	Develop and implement Watershed Urban Runoff Management Program, with watershed-based plans, in collaboration with other watershed copermittees	J
1.6.2	Develop an accurate map of the watershed	J.2.a
1.6.2	Assess the water quality of all receiving waters in each watershed	J.2.b
1.6.2	Identify and prioritize the major water quality problems in the watershed	J.2.c
1.6.2	Develop an implementation schedule for both short and long-term activities	J.2.d
1.6.2	Identify Copermittee responsible for implementing each recommended activity	J.2.e
1.6.2	Implement a mechanism for public participation throughout the entire watershed URMP process	J.2.f

Section	***Requirement (Summary)***	***Permit Section***
1.6.2	Implement a watershed based education program	J.2.g
1.6.2	Develop a mechanism to conduct watershed planning collaboratively with other copermittees	J.2.h
1.6.4	Develop a strategy for assessing the Watershed Urban Runoff Management Program's effectiveness.	J.2.i

Although the final transition from a jurisdiction-based program to a watershed-based program is not required until January 31, 2003, important proactive planning is being undertaken in this component. Thus, the objectives of the Watershed Planning component are to:

- Initiate the establishment of a viable planning process to be used by the City and other Copermittees in developing Watershed Urban Runoff Management Programs;
- Prepare drainage master plans, stream bioassessments, and other technical reports to assist in the watershed planning process;
- Identify a process to facilitate the City's transition from a site-specific to a Watershed-Urban Runoff Management Program;

1.6.2 Activities

The Storm Water Program will conduct the following activities, which are further described below:

- Collaboratively develop Watershed Urban Runoff Management Programs for the San Dieguito River, Peñasquitos, Mission Bay and San Diego River watersheds by January 31, 2003;
- Prepare a Master Plan to determine where storm water BMPs are or will be needed City-wide;
- Collaboratively develop Watershed Management Plans for each of San Diego's four watersheds to provide a vehicle for public participation, water quality problem identification and prioritization, short- and long-term activities.

Watershed Planning Approach

Addressing water quality most efficiently requires an understanding of how water behaves within a watershed (i.e. how it flows, erodes, and collects pollutants). Therefore, the City's integrated watershed planning approach focuses on hydrologically defined drainage basins (watersheds and sub-watersheds) rather than on areas defined by political or property boundaries. This approach recognizes that storm water best

management practices and treatment facilities may be more effective when located logically in the individual watershed or drainage basin, rather than simply at the project site.

The City's watershed planning approach is an integrated, collaborative strategy for more effectively restoring and protecting receiving waters. It is characterized as being action oriented, driven by broad environmental objectives (improving water quality in the watershed's receiving waters), and involving key stakeholders in a participatory, iterative planning process.

The City's watershed planning approach will be guided by the following principles.

- Focus activities within hydrologically-defined areas, or ***watersheds;***
- Develop a simple, scientifically sound procedure to identify water quality problems and solutions in an iterative, collaborative process that has clear timelines, processes, and requirements. The source identification methodology used in the watershed assessments should generally begin by identifying water quality conditions at the base of each watershed (through existing and/or new data), and where impairments are identified, continue to test upstream until pollutant sources are identified;
- Establish partnerships and involve stakeholders;
- Assess, monitor and construct storm water BMPs in an integrated process to maximize pollutant removal efficiency;
- Involve economic, social, political and regulatory issues in watershed planning process, in addition to environmental factors.

Watershed Urban Runoff Management Program

The City's Watershed Urban Runoff Management Programs will address the following components, in addition to the other activities listed in Section 1.6.2:

- Watershed Map— See Component 1.5, ***Inventories***, for further discussion of the City's mapping efforts.
- Water Quality Assessment— See Component 1.4, ***Water Quality Monitoring***, for further discussion of the City's monitoring efforts.
- Water Quality Problem Identification & Prioritization— This component will be implemented through the Watershed Management Plans discussed below.
- Storm Water BMP Selection— This component is closely tied with the problem identification process. Using the Drainage Master Plan described in activity number three, below, storm water BMPs will be identified in an integrated approach that considers existing storm water BMPs in each watershed, storm

water BMPs proposed for new development and redevelopment, future land use conditions, and water quality data. This strategy would be integrated with the City's proposed Localized Equivalent Area Drainage (LEAD) method for new development and redevelopment projects, as described in the watershed planning approach above.

- Implementation Schedule and Responsible Parties— The schedule for implementing short- and long-term activities will be developed based on the Watershed Management Plans and other factors, and listed in the Watershed Urban Runoff Management Program Annual Reports. Responsibilities will also be assigned to implement each of the storm water storm water BMPs.
- Public Participation— The City will elicit public participation in the development, implementation and annual modification of the Watershed Urban Runoff Management Programs through public outreach events, the City's THINK BLUE information line, and the watershed planning process outlined in Figure 1.6-1, Generalized Watershed Planning Management Structure.
- Watershed-Based Education— For a discussion of the City's education efforts, please refer to Component 1.2, ***Education***.
- Long-Term Assessment Strategy— The City will assess the watershed programs based on the strategy outlined in Section 1.6.4, Watershed Urban Runoff Management Program Assessment Strategy, below.

Storm Water BMP Drainage Master Plan

To ensure storm water BMPs are integrated to maximize efficiency, the City will prepare a Drainage Master Plan to determine where storm water BMPs are or will be needed City-wide.

This integrated watershed planning approach will be coordinated with an equivalent approach the City has identified for new development and redevelopment, which the City has termed the LEAD or "Localized Equivalent Area Drainage" approach. Under the LEAD approach, instead of merely looking at the project footprint, the watershed or drainage basins within the project area would be considered for treatment as well. From the basins in the project area, a LEAD watershed or basin would be selected and that runoff would be treated. Storm water BMPs for the LEAD watershed would be located to allow treatment of the entire drainage basin not just the project site.

Watershed Management Plans

Creating the Plans

Every watershed has its own unique set of conditions, issues, and stakeholders and consequently every watershed planning process will be different. The City of San Diego, as the Lead Copermittee in the San Dieguito River, Peñasquitos, Mission Bay and San Diego River watersheds, will serve as the project coordinator and lead the project team. There are, however, certain steps that are common to most planning efforts.

The following discussion is meant to be a general guide to the planning process. It may be modified to fit the particular circumstances of each watershed. Figure 1.6-1 shows the conceptual management structure the City will employ during the watershed planning process. Figure 1.6-2 shows an overview flowchart for watershed assessments and implementation, process timeline, and draft watershed management plan outline follows.

Figure 1.6-1. Generalized Watershed Planning Management Structure.

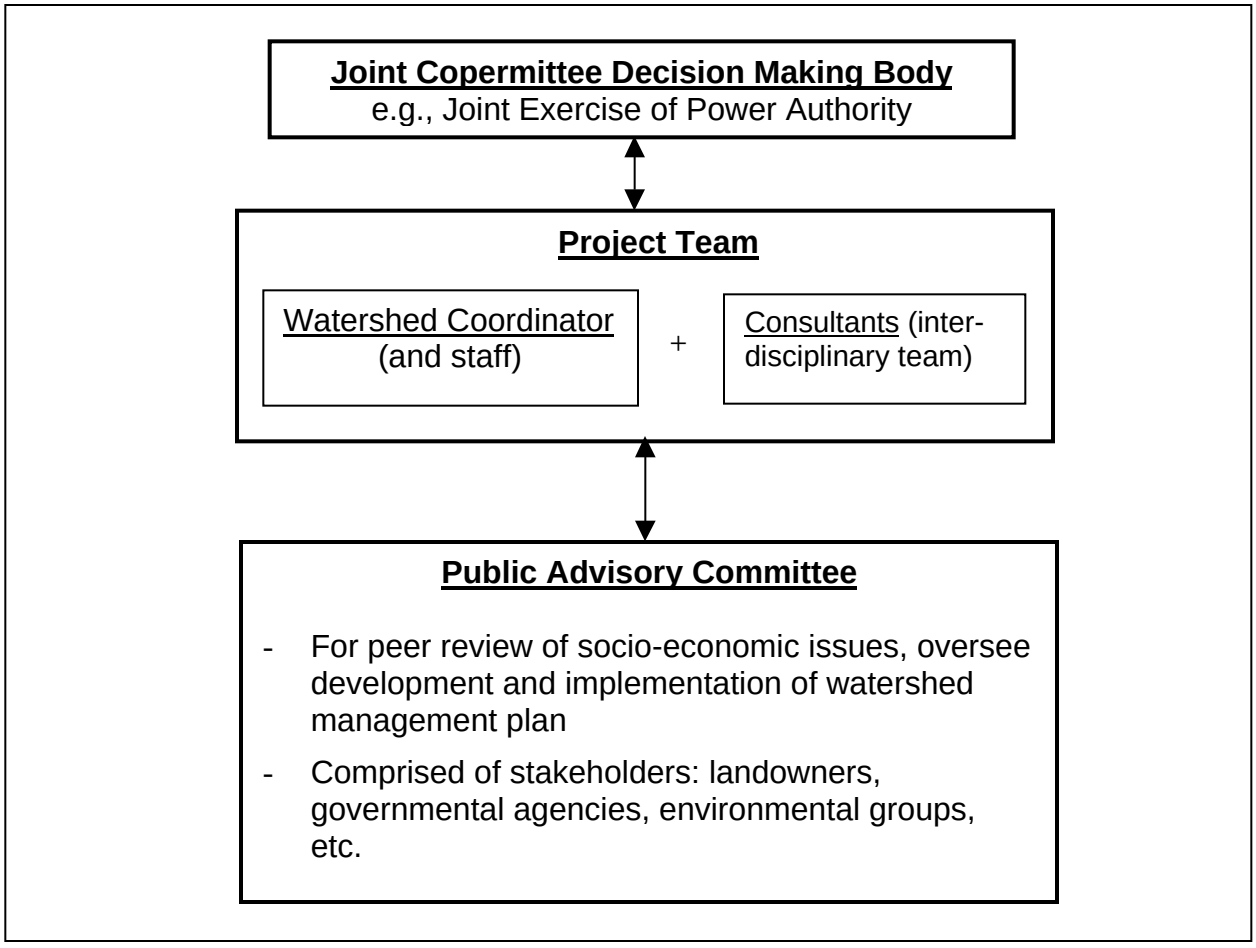


Figure 1.6-2 shows the process the City will employ to develop and implement the Watershed Management Plans. This process has been initiated in the San Diego River and Mission Bay watersheds, where initial restoration projects funded through Clean

Beaches Initiative grants have begun initial project planning, and in the Los Peñasquitos Watershed, where the City has initiated development of the Los Peñasquitos Watershed Management Plan.

The generalized watershed management plan development timeline is also shown on Figure 1.6-3. Although the City's Watershed Urban Runoff Management Programs will be implemented beginning on January 31, 2003, the Watershed Management Plans will be implemented in draft form until they are completed in December of 2003.

Figure 1.6-2. Watershed Management Plan Development Flowchart.

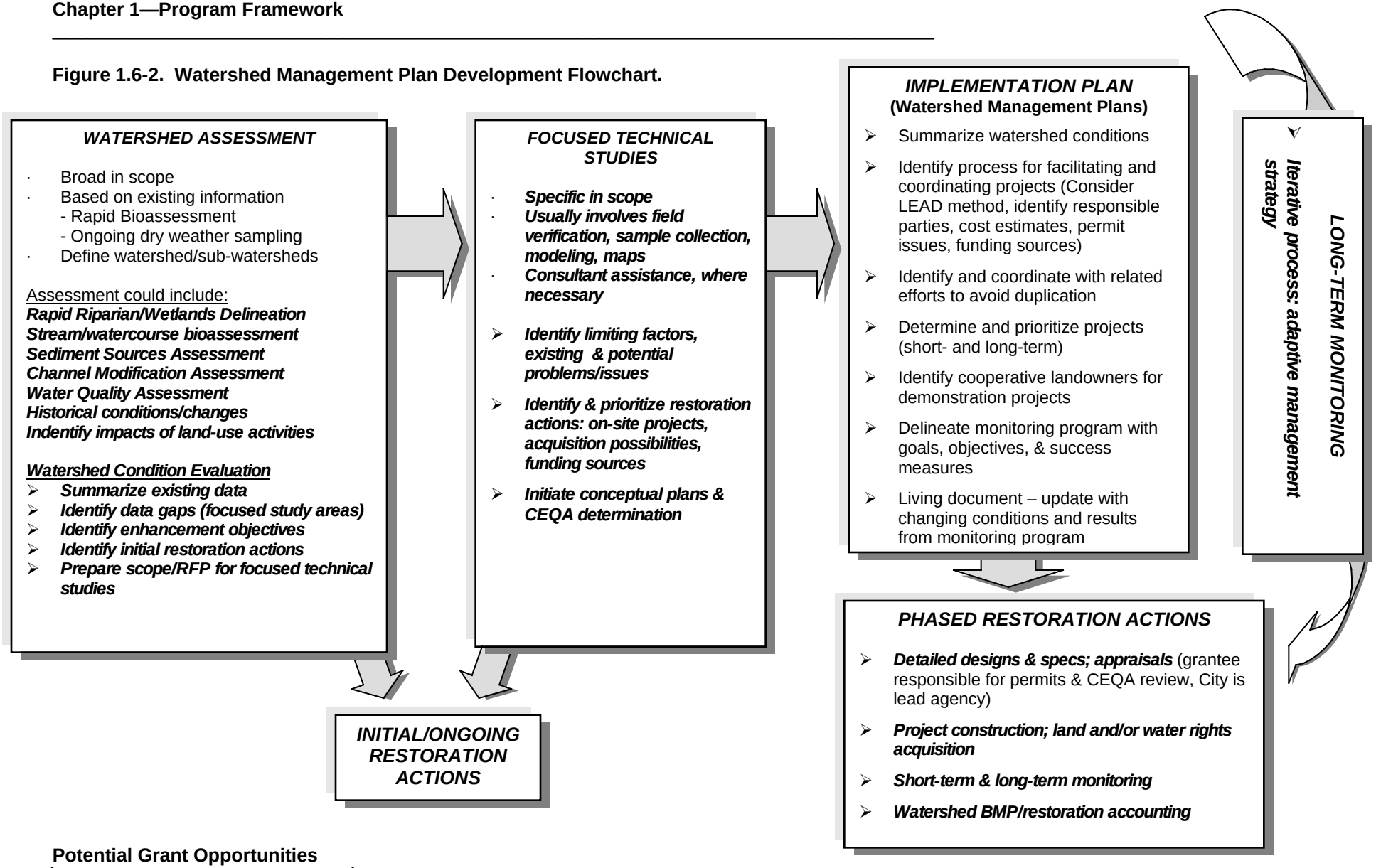
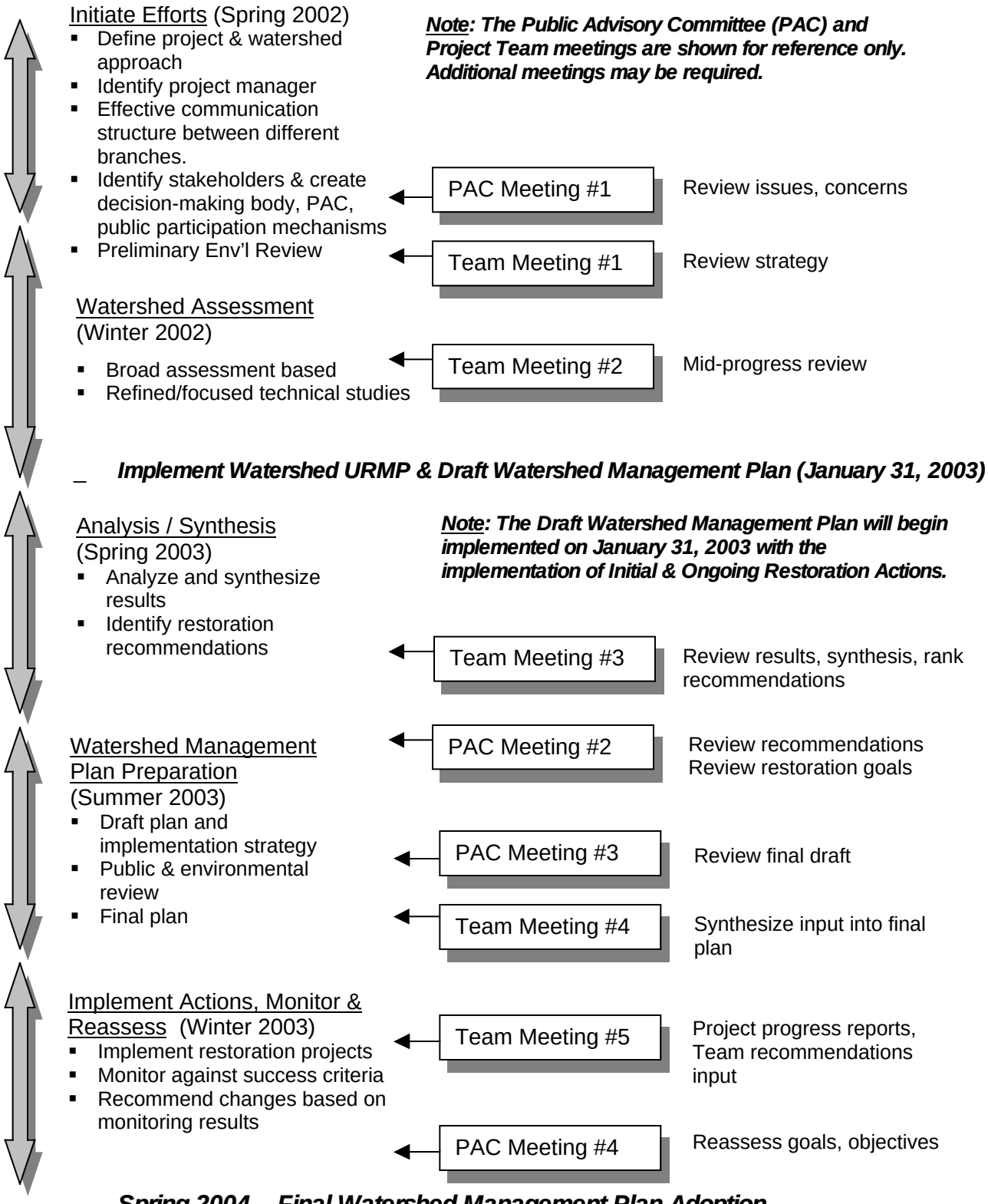


Figure 1.6-3 Watershed Management Plan Development Timeline.



1.6.3 Phasing

Year 1 (July 1, 2001 – June 30, 2002):

- Develop procedures for watershed planning
- Initiate development of Watershed Urban Runoff Management Programs (January 31, 2003)
- Initiate watershed management plan efforts (including LEAD method)
- Begin "Ongoing/ Restoration Actions" (San Diego River and Mission Bay Clean Beaches Initiative projects)
- Initiate collaborative planning process with other jurisdictions
- Prepare & submit annual Watershed Urban Runoff Management Program assessment

Year 2 (July 1, 2002 – June 30, 2003):

- Complete development of, and implement Watershed Urban Runoff Management Programs (January 31, 2003)
- Continue development and interim implementation of Draft Watershed Management Plans (Ongoing/ Restoration Actions-- San Diego River and Mission Bay Clean Beaches Initiative projects)
- Prepare & submit annual Watershed Urban Runoff Management Program assessment

Year 3 (July 1, 2003 – June 30, 2004):

- Continue implementation of Watershed Urban Runoff Management Plan activities
- Complete Watershed Management Plans
- Complete "Ongoing/ Restoration Actions" (San Diego River and Mission Bay Clean Beaches Initiative projects)
- Initiate storm water BMP projects identified in Watershed Management Plans
- Prepare & submit annual Watershed Urban Runoff Management Program assessment

Year 4 (July 1, 2004 – June 30, 2005):

- Initiate/continue/complete storm water BMP projects identified in Watershed Management Plans
- Prepare & submit annual Watershed Urban Runoff Management Program assessment

Year 5 (July 1, 2005 – June 30, 2006):

- Initiate/continue/complete storm water BMP projects identified in Watershed Management Plans
- Prepare & submit annual Watershed Urban Runoff Management Program assessment

Actual implementation of the activities listed above is dependent upon identification of funding in future yearly budgets and City Council approval.

1.5.4 Annual Assessment

The Watershed Urban Runoff Management Program assessment strategy will be similar to the strategy discussed in Component 1.7, ***Program Assessment***. The assessment will be coordinated with the other Copermittees in each watershed, and modified as appropriate based on results of each year's assessment efforts.

The following form is representative of the quantitative and qualitative measures that will be tracked by the Storm Water Program regarding the Watershed Planning component in order to prepare the Jurisdictional Urban Runoff Management Program annual assessment. ***These assessment factors and questions are presented for information only; some questions may be modified prior to each annual assessment period, and not all of the factors or questions below may apply to each component's responsible department(s)***. Prior to each fiscal year, a tailored Annual Assessment Form will be distributed to responsible departments, and will include an Excel spreadsheet containing direct and indirect quantitative and qualitative measures similar to the example below. The Storm Water Program will provide a blank copy of the Annual Assessment Form and additional guidance to department management prior to the beginning of each fiscal year. Submission of this report will require department director approval.

Program Assessment Form – Watershed Planning Component

QUANTITATIVE ASSESSMENT:

Quantitative assessments will be developed in coordination with the Copermittees sharing individual watersheds as part of the Watershed Urban Runoff Management Plan development process.

QUALATATIVE ASSESSMENT:

1. Describe the major accomplishments of the Watershed Planning component over the past year (for example; development of watershed-based program).

2. Summarize the effectiveness of collaboration with other copermittees on progressing towards a watershed-based program.

3. Summarize new activities or improvements to be implemented next year as a result of your self- assessment.

4. Other comments.

FINANCIAL ASSESSMENT:

Estimated annual storm water expenditures:

Personnel Expenditures: _____
Non-personnel Expenditures: _____